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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,514	05/08/2001	Cipriano A. Santos	10008147-1	4356

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HEWLETT-PACKARD COMPANY  
Intellectual property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

DURAN, ARTHUR D

ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/851,514

Applicant(s)

SANTOS ET AL.

Examiner

Arthur Duran

Art Unit

3622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3622

### **DETAILED ACTION**

1. Claims 1, 2, 4-20 have been examined.

#### ***Response to Amendment***

2. The Amendment filed on 1/12/05 is sufficient to overcome the Gerace reference.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1, 2, 4-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerace (5,848,396) in view of Harhen (5,406,477) in view of Deaton (5,687,322).

Claim 1, 11, 17, 19, 20: Gerace discloses a computerized method of determining differential promotion allocation among prospective customers comprising the steps of:

entering management information that is specific to business management objectives and constraints, including entering budget information (col 12, lines 5-42; col 13, lines 10-20); and

defining a campaign plan for allocating presentations of a plurality of said promotions among said customers, including using automated processing to form said campaign plan on the basis of customer segments (col 13, lines 1-33; col 12, lines 25-30; col 33, line 63-col 34, line 20)

Art Unit: 3622

and said management information, said customer segments being based upon customer commonalities with respect to at least one customer attribute, said campaign plan being defined to include at least one restricted promotion for each customer segment (col 34, lines 7-15; col 20, lines 9-19; col 18, lines 20-25; col 13, lines 9-20; col 12, lines 39-42).

Also, note that an advertisement is a type of promotion.

The Merriam-Webster online dictionary at [www.m-w.com](http://www.m-w.com) defines advertise and promote as:

**“advertise:**

**1** : to make something known to : NOTIFY

**2 a** : to make publicly and generally known <advertising their readiness to make concessions> **b**

: to announce publicly especially by a printed notice or a broadcast

**c** : to call public attention to especially by emphasizing desirable qualities so as to arouse a desire to buy or patronize : PROMOTE

**promote:**

**1** . . .

**2 a** : to contribute to the growth or prosperity of : FURTHER <promote international understanding> **b** : to help bring (as an enterprise) into being : LAUNCH

**c** : to present (merchandise) for buyer acceptance through advertising, publicity, or discounting”

Therefore, Gerace’s advertisements are a form of promotion.

Also, Gerace discloses product specials and discounts presented to targeted users (col 9, lines 10-14; col 32, lines 9-15).

In regards to claim 11, Gerace discloses a system for forming a promotion campaign plan comprising:

Art Unit: 3622

stored customer segment information indicative of mapping a plurality of customers to a smaller number of customer segments, said mapping being based on attributes that are perceived as being relevant to customer activity when presented with promotions (col 20, lines 9-20);

stored promotion information regarding a plurality of promotions; stored market information regarding marketing considerations relevant to said promotions; stored management information regarding business objectives and business constraints relevant to said promotions; and

an optimization engine configured to design a promotion campaign as an algorithmic response to each of said stored customer segment information, said stored promotion information, said stored market information and said stored management information, wherein said promotion campaign indicates promotion strategies on a promotion-by-promotion and segment-by-segment basis, said optimization engine being enabled to detect and automatically optimize the achieving of said business objectives considering said business constraints (col 12, lines 5-42; col 13, lines 10-20; col 13, lines 1-33; col 12, lines 25-30; col 33, line 63-col 34, line 20; col 34, lines 7-15; col 20, lines 9-19; col 18, lines 20-25; col 13, lines 9-20; col 12, lines 39-42).

In regards to claim 17, Gerace discloses a method of determining differential promotion allocation among website visitors comprising the automated programming steps of:

entering market data that includes visitor conversion information and null promotion information, said conversion information being specific to visitor groups that are based on common attributes among said visitors, said conversion information identifying group-by-group characteristics relating to desired website visitor activities (col 12, lines 6-42; col 33, lines 35-col

Art Unit: 3622

34, line 28), said null promotion information identifying factors specific to said groups and said desired website visitor activities when there is an absence of promotions that are designed to promote said website visitor activities (col 18, lines 20-25);

entering management data that includes business objectives and business constraints, said business objectives including information regarding target numbers of conversions and target purchases, said business constraints including group-by-group budget constraints; and computing a campaign plan that is specific to each said group and each said promotion, said campaign plan being based upon said market and management data (col 12, lines 6-42; col 33, lines 35-col 34, line 28).

Gerace further discloses tracking company profit levels or revenue levels (col 11, lines 6-14).

Gerace does not explicitly disclose target profit levels or target revenue levels.

However, Deaton discloses target profit levels or target revenue levels (col 34, lines 35-40; col 63, lines 37-43; col 63, lines 55-65; col 74, lines 55-62; col 75, lines 3-10; col 124, lines 43-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Deaton's tracking of profit or revenue to Gerace's optimal targeted promotions. One would have been motivated to do this in order to provide promotions that best optimize a sponsor's revenue or profit from purchases.

Deaton also discloses that restricted promotions to a customer segment generates excitement among purchasers (col 109, line 5-7).

Art Unit: 3622

Additionally, in regards to all the independent claims, Gerace disclose automatically optimizing the achieving of said business objectives considering said business constraints (col 19, lines 15-32; col 15, lines 10-15; col 15, lines 29-35; and other citations above).

Gerace further discloses targeted marketing (col 2, lines 32-35; col 18, line 65-col 19, line 3).

Gerace does not explicitly disclose automatically detecting contradictions between said constraints and other aspects of said entered management information;

automatically identifying resolutions to said contradictions; and implementing said resolutions in said campaign plan.

However, Harhen discloses marketing and business objectives (col 1, line 60; col 2, line 14-18; col 2, line 27-32) including targeted marketing (col 10, lines 1-40) and demographics analysis (col 2, lines 57-61).

Harhen further discloses automatically detecting inconsistencies and contradictions between said constraints and other aspects of said entered management information;

automatically identifying resolutions to said inconsistencies and contradictions; and implementing said resolutions in said campaign plan (Abstract; col 6, lines 45-67; col 6, lines 52-55).

Harhen further discloses identifying contradictions and conflicts (col 14, lines 52-58; col 41, line 11-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Harhen's further analysis and optimization of business and marketing objectives with inconsistency resolution to Gerace's optimization of marketing

Art Unit: 3622

objectives . One would have been motivated to do this in order to provide more advanced modeling and, therefore, better optimization to Gerace's optimization.

Additionally, the online Merriam-Webster dictionary at [www.m-w.com](http://www.m-w.com) defines

**inconsistent** as, “: lacking consistency: as **a** : not compatible with another fact or claim <*inconsistent* statements> **b** : containing incompatible elements <an *inconsistent* argument> **c** : incoherent or illogical in thought or actions : CHANGEABLE **d** : not satisfiable by the same set of values for the unknowns <*inconsistent* equations> <*inconsistent* inequalities,” and,

**contradiction** as, “... **2 a** : a proposition, statement, or phrase that asserts or implies both the truth and falsity of something **b** : a statement or phrase whose parts contradict each other <a round square is a *contradiction* in terms> **3 a** : logical incongruity **b** : a situation in which inherent factors, actions, or propositions are inconsistent or contrary to one another,” and,

**mutually exclusive** as, “: being related such that each excludes or precludes the other <*mutually exclusive* events>; also : INCOMPATIBLE <their outlooks were not *mutually exclusive*>”.

Therefore, it is obvious that the inconsistencies and contradictions of Harhen can be mutually exclusive.

Claim 2: Gerace and Harhen and Deaton disclose the method of claim 1, 18, and Gerace further discloses that said step of defining said campaign plan includes:

automatically identifying an inconsistency in achieving two of said business management objectives;

automatically determining a guideline for resolving a trade-off between said two business management objectives; and

Art Unit: 3622

utilizing said guideline in configuring said campaign plan (col 15, lines 10-15; col 15, lines 29-35).

Claim 4: Gerace and Harhen and Deaton disclose the method of claim 3, and Gerace further discloses that said step of automatically detecting said contradictions includes generating a report which identifies said contradictions and said resolutions (col 33, lines 35-col 34, lines 27).

Claim 5: Gerace and Harhen and Deaton disclose the method of claim 1, and Gerace further discloses that said step of entering said management information includes entering data indicative of budget constraints (1) for individual said customer segments (col 19, lines 24-26; col 19, lines 19-21) and (2) for said overall campaign plan (col 19, lines 35-40; col 19, lines 24-26; col 12, lines 8-20). Furthermore, because the sponsor can indicate how many hits a sponsor wants to purchase (col 19, lines 24-26) and because a charge can be assigned per hit (col 12, lines 8-20), the sponsor is able to enter the amount of money he wishes to spend per package.

Claim 6: Gerace and Harhen and Deaton disclose the method of claim 1, and Gerace further discloses that said campaign plan is specific to application via the global communications network referred to as the Internet (col 3, lines 50-54).

Claim 7: Gerace and Harhen and Deaton disclose the method of claim 1, and Gerace further discloses that said campaign plan is specific to application via a telecommunications network (col 3, lines 44-46; col 3, lines 39-46).

Claim 8: Gerace and Harhen and Deaton disclose the method of claim 1, and Gerace further discloses a step of entering market data on which said campaign plan is further based,

Art Unit: 3622

including entering conversion data that is indicative of the responsiveness of each said customer segment to said promotions (col 33, line 43-col 34, line 27).

Claim 9: Gerace and Harhen and Deaton disclose the method of claim 8, and Gerace further discloses that said step of entering said market data includes providing null promotion data for individual said customer segments, said null promotion data being indicative of probabilities of achieving said business management objectives during an absence of said promotions (col 19, lines 19-25).

Claim 10, 14, 15, 18: Gerace and Harhen and Deaton disclose the method of claim 1, 11, 17.

Gerace does not explicitly disclose that supply chain data or availability of goods or services can be a consideration in regards to promotions.

However, Deaton discloses that supply chain data or availability of goods or services can be a consideration in regards to promotions (col 17, lines 17-38; col 94, lines 43-48; col 103, lines 5-25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Deaton's promotions that consider the supply of the item to be purchased to Gerace's targeted promotions to a user. One would have been motivated to do this in order to provide promotions of products that are of more timely benefit to the sponsor.

Deaton further discloses tracking on-hand inventory (col 103, lines 5-10).

Deaton does not explicitly disclose that the data indicates currently ordered inventory.

However, Deaton discloses that when an inventory is short of a product can be monitored (col 103, lines 7-10) and that promotions can be geared to a product group, specific product, or

Art Unit: 3622

department (col 103, lines 20-25) and that incentives can be related to product inventory situations (col 103, lines 7-10).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to that Deaton's gearing incentives towards product inventory situations can include the product situations of ordering products when the products are low on inventory. One would have been motivated to do this in order to provide a more comprehensive product inventory situation to relate to product promotions.

Claim 12: Gerace and Harhen and Deaton disclose the system of claim 11. Gerace further discloses that said stored management information includes budget constraints for each said customer segment, said optimization engine being configured to be responsive to said budget constraints such that said promotion campaign includes designations of portions of specific said customer segments that are to be presented with particular said promotions (col 15, lines 10-17; col 19, lines 35-40; col 19, lines 24-26; col 12, lines 8-20; col 19, lines 19-21).

Claim 13: Gerace and Harhen and Deaton disclose the system of claim 11. Gerace further discloses that said optimization engine is cooperative with a feasibility engine that is configured to recognize and address said contradictions in said stored management information, said feasibility engine being enabled to determine resolutions to said contradictions that involve said business constraints (col 19, lines 20-32).

Claim 16: Gerace and Harhen and Deaton disclose the system of claim 11. Gerace further discloses that said optimization engine is cooperative with an efficiency frontier engine that is configured to recognize said inconsistencies and to determine trade-offs among said

Art Unit: 3622

business objectives, said efficiency frontier engine being responsive to a hierarchy of said business objectives (col 12, lines 27-35).

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 2, 4-20 have been considered but are moot in view of the new ground(s) of rejection.

Examiner further notes that it is the Applicant's claims as stated in the Applicant's claims that are being rejected with the prior art.

Examiner notes that while specific references were made to the prior art, it is actually also the prior art in its entirety and the combination of the prior art in its entirety that is being referred to.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur Duran whose telephone number is (571) 272-6718. The examiner can normally be reached on Mon- Fri, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Arthur Duran". The signature is fluid and cursive, with the first name "Arthur" being more prominent than the last name "Duran".

Arthur Duran  
Patent Examiner  
2/23/05